UNITED STATES PATENT AND TRADEMARK OFFICE

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09/757,015	01/08/2001	Sajid Ahmed	53296-2	7094

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EXAMINER
BELL, MELTIN

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 05 April 2004.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 6-25 is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 6-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 8/13/01 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This action is responsive to application **09/757,015** filed **01/08/01** as well as

Amendment A filed 4/5/04. Claims 1-5 have been canceled. Claims 6-25 filed by the

applicant have been entered and examined. An action on the merits of claims 6-25

appears below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Claims 10 and 19 contain the trademark/trade name

ELICIT™. Where a trademark or trade name is used in a claim as a limitation to identify

or describe a particular material or product, the claim does not comply with the

requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ

1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name

cannot be used properly to identify any particular material or product. A trademark or

trade name is used to identify a source of goods, and not the goods themselves. Thus,

a trademark or trade name does not identify or describe the goods associated with the

trademark or trade name. In the present case, the trademark/trade name is used to

identify/describe a core algorithm used to process, one or more values and, accordingly,

the identification/description is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6-8, 11-17 and 20-25 are rejected under 35 U.S.C. 102(b) as being

anticipated by *Lenz* USPN 5,784,539 (Patent Date July 21, 1998).

Regarding claim 6:

Lenz teaches,

- (a) configuring, in one or a plurality of electronic databases stored in a storage device

of a computer, a set of alternatives, a query set comprising at least one query, and a set

of primary bias values, wherein each primary bias value is associated with a particular

alternative of the set of alternatives, and reflects at least one human expert's prior

conception of the degree of predictive value of the query for the particular alternative

relative to others (Fig. 1; column 6, lines 31-57, "In the architecture ... individual network

architectures")

- (b) inputting a user's response to the query into the computer (column 6, lines 58-65,

"The user questionnaire ... the expert system114")

- (c) ranking, using a software program stored on the storage device that is operative

with a processor of the computer to receive and process the user's response, the

alternatives according to relative likelihood, based at least in part on the set of primary

bias values (Fig. 1; column 7, lines 17-47, "the present invention ... and execution

thereon")

Regarding claim 7:

Lenz teaches,

- ranking the set of alternatives further comprises querying the one or more electronic

databases to generate at least one secondary bias value that is based on the

corresponding primary bias value and the response to the query, wherein each

secondary bias value is associated with a particular alternative of the set of alternatives,

and reflects the expert prior conception of the degree of predictive value of the query

and response for the particular alternative relative to others, and wherein ranking is

based, at least in part, on the secondary bias values, or at least in part on a combination

of the primary and secondary bias values (column 8, lines 19-31, "The inference engine

... to the rules 118")

Regarding claims 8:

Lenz teaches,

- generating the second bias values involves increasing, decreasing or conserving the

corresponding primary bias values based on the response to the query (column 8, lines

57-65, "The architecture score ... required quality value")

Regarding claims 11:

Lenz teaches,

- wherein the set of alternatives is a set of alternate medical diagnoses or conditions,

wherein the expert is a medical expert, and wherein ranking the alternatives provides a

list of alternate medical diagnoses or conditions, ranked according to likelihood (Fig, 8;

column 1, lines 14-62, "Expert systems are ... given set of inputs")

Regarding claim 12:

The rejection of claim 12 is the same as that for claim 6 as recited above since the

stated limitations of the claim are set forth in the reference.

Regarding claim 13:

The rejection of claim 13 is similar to that for claim 12 as recited above since the stated

limitations of the claim are set forth in the reference. Claim 13's limitations difference is

taught in *Lenz*:

- a user database, comprising user information, wherein the program is operative with

the processor to store, access and update user information when new user information

is received (Fig. 1; column 3, lines 40-60, "One of the ... the output entities")

Regarding claim 14:

The rejection of claim 14 is similar to that for claim 13 as recited above since the stated

limitations of the claim are set forth in the reference. Claim 14's limitations difference is

taught in *Lenz*:

- the program is further operative with the processor to track the user information

(column 18, lines 61-67, "When the user ... the question number")

Regarding claim 15:

The rejection of claim 15 is similar to that for claim 6 as recited above since the stated

limitations of the claim are set forth in the reference. Claim 15's limitations difference is

·taught in *Lenz*:

- (c) transmitting the user's response to the server over the wide-are network (column

38, lines 28-34, "A single broadcast ... that utilize them"; column 39, lines 32-44, "This

architecture utilizes ... your user preferences")

Regarding claim 16:

The rejection of claim 16 is similar to that for claim 15 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 16's limitations

difference in the above rejection of claim 7.

Regarding claim 17:

The rejection of claim 17 is similar to that for claim 16 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 17's limitations

difference in the above rejection of claim 8.

Regarding claim 20:

The rejection of claim 20 is similar to that for claim 15 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 20's limitations

difference in the above rejection of claim 11.

Regarding claim 21:

The rejection of claim 21 is the same as that for claim 15 as recited above since the

stated limitations of the claim are set forth in the reference.

Regarding claim 22:

The rejection of claim 22 is similar to that for claim 21 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 22's limitations

difference in the above rejection of claim 13.

Regarding claim 23:

The rejection of claim 23 is similar to that for claim 21 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 23's limitations

difference in the above rejection of claim 14.

Regarding claim 24:

The rejection of claim 24 is the same as that for claim 7 as recited above since the

stated limitations of the claim are set forth in the reference.

Regarding claim 25:

The rejection of claim 25 is similar to that for claim 21 as recited above since the stated

limitations of the claim are set forth in the reference. Lenz teaches claim 25's limitations

difference in the above rejection of claim 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Office presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Office to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 9-10 and 18-19 are rejected under 35 U.S.C. 103(a) as being obvious over *Lenz* in view of *Hekmatpour* USPN 5,870,768 (Patent Date February 9, 1999).

Regarding claims 9:

Lenz teaches,

- (a) configuring, in one or a plurality of electronic databases stored in a storage device of a computer, a set of alternatives, a query set comprising at least one query, and a set of primary bias values, wherein each primary bias value is associated with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others (Fig. 1; column 6, lines 31-57, "In the architecture ... individual network architectures")

- (b) inputting a user's response to the query into the computer (column 6, lines 58-65, "The user questionnaire ... the expert system114")

- (c) ranking, using a software program stored on the storage device that is operative

with a processor of the computer to receive and process the user's response, the

alternatives according to relative likelihood, based at least in part on the set of primary

bias values (Fig. 1; column 7, lines 17-47, "the present invention ... and execution

thereon")

- ranking the set of alternatives further comprises querying the one or more electronic

databases to generate at least one secondary bias value that is based on the

corresponding primary bias value and the response to the query, wherein each

secondary bias value is associated with a particular alternative of the set of alternatives,

and reflects the expert prior conception of the degree of predictive value of the query

and response for the particular alternative relative to others, and wherein ranking is

based, at least in part, on the secondary bias values, or at least in part on a combination

of the primary and secondary bias values (column 8, lines 19-31, "The inference engine

... to the rules 118")

- wherein the query set comprises a plurality of queries, and wherein ranking the

alternatives involves summing of at least one of primary and secondary bias values

(column 27, lines 21-23, "The score for ... beneath that parent")

However, *Lenz* doesn't explicitly teach wherein the query set comprises a plurality of

queries, and wherein ranking the alternatives involves summing and averaging of at

least one of primary and secondary bias values while *Hekmatpour* teaches,

- wherein the query set comprises a plurality of queries, and wherein ranking the alternatives involves summing and averaging of at least one of primary and secondary bias values (column 23, lines 44-46, "With an unordered ... to select from")

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for

- Faster searches (*Hekmatpour*, column 23, lines 46-53, "With an ordered ... support this assumption")

- Easy update and selection of new entities (*Lenz*, column 3, lines 40-60, "One of the ... the output entities")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Lenz* as taught by *Hekmatpour* for the purpose of improving update and selection speed.

Regarding claims 10:

Lenz teaches,

(a) configuring, in one or a plurality of electronic databases stored in a storage device of a computer, a set of alternatives, a query set comprising at least one query, and a set of primary bias values, wherein each primary bias value is associated with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others (Fig. 1; column 6, lines 31-57, "In the architecture ... individual network architectures")

(b) inputting a user's response to the query into the computer (column 6, lines 58-65,

"The user questionnaire ... the expert system114")

(c) ranking, using a software program stored on the storage device that is operative with

a processor of the computer to receive and process the user's response, the

alternatives according to relative likelihood, based at least in part on the set of primary

bias values (Fig. 1; column 7, lines 17-47, "the present invention ... and execution

thereon")

- ranking the set of alternatives further comprises querying the one or more electronic

databases to generate at least one secondary bias value that is based on the

corresponding primary bias value and the response to the query, wherein each

secondary bias value is associated with a particular alternative of the set of alternatives,

and reflects the expert prior conception of the degree of predictive value of the query

and response for the particular alternative relative to others, and wherein ranking is

based, at least in part, on the secondary bias values, or at least in part on a combination

of the primary and secondary bias values (column 8, lines 19-31, "The inference engine

... to the rules 118")

- wherein the query set comprises a plurality of queries, and wherein ranking the

alternatives involves summing of at least one of primary and secondary bias values

(column 27, lines 21-23, "The score for ... beneath that parent")

However, *Lenz* doesn't explicitly teach wherein generating secondary bias values, and

ranking the alternatives is achieved, at least in part, by using algorithm 42 (ELICIT™)

while *Hekmatpour* teaches,

- wherein generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 (ELICIT™) (column 1, lines 45-54, "There have been ... entity and symptoms"; column 9, lines 22-36, "many expert systems ... clusters of knowledge"; column 10, lines 58-67, "The following guidelines ... while guidelines 20-27 concern"; column 11, lines 1-4, "refining the knowledge ... the present invention"; column 14, lines 16-22, "there have been ... and functional relationships"; column 20, lines 6-29, "cases can be ... fixed the problem"; column 21, lines 59-62, "The CUA user interface ... and user testing")

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for

- Faster searches (*Hekmatpour*, column 23, lines 46-53, "With an ordered ... support this assumption")

- Easy update and selection of new entities (*Lenz*, column 3, lines 40-60, "One of the ... the output entities")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Lenz* as taught by *Hekmatpour* for the purpose of improving update and selection speed.

Regarding claim 18:

The rejection of claim 18 is similar to that for claim 9 as recited above since the stated limitations of the claim are set forth in the references. Lenz teaches claim 18's limitations difference in the above rejection of claim 16.

Regarding claim 19:

The rejection of claim 19 is similar to that for claim 10 as recited above since the stated

limitations of the claim are set forth in the references. Lenz teaches claim 19's

limitations difference in the above rejection of claim 16.

RESPONSE TO APPLICANTS' AMENDMENT A REMARKS

Applicant(s) argue(s) that no new matter has been added in the amendment of

claims 6-23, the drawings, the specification and the addition of new claims 24-25

(Amendment A REMARKS page 11).

Drawings

The amendments to the drawings have been entered and examined. Following are

objections to the drawings

- The fuzzy primary bias data set is not obvious in Fig. 7 as suggested on page 13,

   paragraph 6.

- 'personal attributes' on page 13, paragraph 7 and page 23, paragraph 5 in

   regards to Fig. 8. would read well as User profile.

- Fig. 27 is missing the 'B' described on page 16, paragraph 5 and page 30,

   paragraph 4 and the 'B_d' described on page 30, paragraph 5.

Specification

The specification has not been checked to the extent necessary to determine the

presence of all possible minor errors. Applicant's cooperation is required in correcting

any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities:

-   The amended title (Alternate Ranking According to Expert-Assigned Bias Values)

    has been entered.

-   The amended summary of invention has been entered.

-   '(and simple as activators)' is unclear on page 14, paragraph 1.

-   'responses the queries' on page 15, paragraph 5 would read well as 'responses

    to queries'.

-   'what' should be removed from page 15, paragraph 7 for consistency and clarity

    with Fig. 18.

-   'anther' would read well as 'another' on page 17, paragraph 5.

-   'the either' would read well as 'the' on page 21, paragraph 4.

-   The brief description of drawings section on pages 12-16 is too verbose.

-   The Turban and McNeil et al references described on page 3, paragraph 2 and

    page 5, paragraph 1, respectively, should be listed and included in an

    Information Disclosure Statement (IDS).

-   The use of the trademarks ELICIT, CLIPS, MYCIN, EMYCIN, PUFF, OMERON,

    OPE, ODE, FILEMAKER PRO, PERL SCRIPT, CGI, UNIX OS, MICROSOFT

    WINDOWS NT, MICROSOFT IIS, MICROSOFT ACCESS ORACLE and

MICROSOFT SQL have been noted in this application (amendment A: page 3,

paragraph 1; specification: Fig. 10, page 2, paragraph 4, page 7, paragraph 3,

page 14, paragraphs 2-4, page 17, paragraph 3, page 21, paragraph 5, page 3,

paragraph 2, page 24, paragraphs 4-5). They should be capitalized wherever

they appear and be accompanied by the generic terminology. Although the use

of trademarks is permissible in patent applications, the proprietary nature of the

marks should be respected and every effort made to prevent their use in any

manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

Applicant(s) argue(s) that the rejection in the prior office action should be

withdrawn due to canceled claims 1-5 (Amendment A REMARKS page 12, paragraphs

1-3).

Claim Rejections - 35 USC § 112, 1st paragraph

Applicant(s) argue(s) that the rejection in the prior office action should be

withdrawn due to canceled claims 1-5 (Amendment A REMARKS page 12, paragraphs

4-5).

Claim Rejections - 35 USC § 112, 2nd paragraph

Applicant(s) argue(s) that canceled claim 4 and amended claims 10 and 19

overcome the indefiniteness for reciting a trademark/trade name to identify a core

algorithm rejection of claims 4, 10 and 19 in the prior office action (Amendment A

REMARKS page 12, paragraphs 6-9).

The examiner disagrees. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App.

1982) for affirmation of the rejection.

Claim Rejections - 35 USC § 102

Applicant(s) argue(s) that the teachings of Lenz USPN 5,784,539 have been

inadvertently misconstrued in rejecting claims 6-12 (Amendment A REMARKS page 14,

paragraph 2) and that Lenz does not teach claim 10's "Algorithm 42" (Amendment A

REMARKS page 13, paragraph 5).

Though Lenz discloses 1) fuzzy algorithm for ranking a list of network

architectures best matching required qualities in column 7, lines 31-36 and 2) the

relational database implementation of the architecture library in column 7, lines 14-16,

column 8, lines 19-23, column 10, lines 27-30 and column 21, lines 37-44, the examiner

agrees that Lenz does not explicitly disclose the instant applicant's Algorithm 42.

However, Hekmatpour (USPN 5,870,768) is cited and discloses subject matter set forth

in Algorithm 42:

-   expert systems that reason by exploiting causal, structural and functional

    relationships in column 1, lines 45-54, column 9, lines 22-36, column 10, lines

    58-67, column 11, lines 1-4 and column 21, lines 59-62

-   fuzziness for tracking user responses in column 20, lines 6-29.

When Lenz is modified as taught by Hekmatpour for the purpose of improving update

and selection speed, the instant applicant's Algorithm 42 would have been the result

obvious to one of ordinary skill in the art at the time the invention was made.

Applicant(s) argue(s) that the queries, conditions (diagnoses) and bias values of

the instant application are distinct from Lenz (Amendment A REMARKS page 15,

paragraph 3).

Applicants' arguments are not agreed with as Lenz sometimes uses different

terminology to disclose the subject matter set forth in the applicants' claims:

-   queries in column 44, line 21 and column 45, line 47

-   a user questionnaire in the Abstract, Figs. 6-7, column 4, lines 9-24, column 6,

    lines 32-35, column 6, lines 58-65, column 7, lines 55-67, column 8, lines 1-18

    and column 11, lines 57-61

-   qualities and associated values in column 6, lines 49-52, column 19, lines 57-67

    and column 20, lines 1-3

-   diagnoses or conditions in Fig, 8; column 1, lines 14-62

The items listed above correspond to the applicants' claimed limitations albeit, some

have different names. As set forth above, with regards to column 6, lines 49-52, column

19, lines 57-67 and column 20, lines 1-3 Lenz default quality values set by the system

administrator can be changed by the user. Whether this is called a bias value or quality

value is of no moment since applicants have not set forth any distinction between the

two.

Claim Rejections - 35 USC § 103

Applicant(s) argue(s) that no prima facie case of obviousness can be made

based on Lenz alone or in combination with Goldenberg USPGP 20020065682 in the

rejection of claims 5 and 13-23 (Amendment A REMARKS page 16, paragraphs 3-6).

The applicant's arguments are not agreed with. Medical diagnoses and medical

expert systems are disclosed in column 1, lines 14-62 of Lenz.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

- *Hekmatpour* USPN 5870768 A; Expert system and method employing hierarchical

knowledge base, and interactive multimedia/hypermedia applications

Any inquiry concerning this communication or earlier communications from the

Office should be directed to Meltin Bell whose telephone number is 703-305-0362. This

Examiner can normally be reached on Mon - Fri 7:30 am - 4:30 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor,

Anthony Knight, can be reached on 703-308-3179. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MB

Anthony Knight
Supervisory Patent Examiner
Group 3600